Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Previously presented) A method for leak-testing a component made of a composite material consisting of at least one cover layer and a construction core having a plurality of cavities, said method comprising, on at least one side of the component to be tested, completely wetting with a film of a foam-forming testing liquid at least an area to be tested, subjecting the component to a temperature increase, and checking the component test area for a bubble formation of the testing liquid.

2. (Previously presented) The testing method according to claim 1, wherein at least the component area to be tested is cooled before being wetted with the testing liquid.

3. (Previously presented) The testing method according to claim 2, wherein the cooling is effected to -30°C at most.

4. (Previously presented) The testing method according to claim 1, wherein at least the component test area is heated after having been wetted with the testing liquid.

5. (Previously presented) The testing method according to claim 4, wherein at least the component test area is heated by irradiation.

6. (Previously presented) The testing method according to claim 4, wherein the heating is effected to a maximum of 80°C.

7. (Previously presented) The testing method according to claim 1, wherein opposed portions of the component area to be tested are wetted with the testing liquid.

8. (Previously presented) The testing method according to claim 1, wherein sites exhibiting bubble formation are marked.

9. (Previously presented) The testing method according to claim 1, wherein the testing liquid is applied by brushing to at least the component area to be tested.

10. (Previously presented) The testing method according to claim 1, wherein the testing liquid is applied by spraying to at least the component area to be tested.

11. (Previously presented) The testing method according to claim 1, further comprising after said testing, a step of removing the testing liquid by washing.

12. (Previously presented) The testing method according to claim 11, wherein the washing step is effected under pressure.

13. (Previously presented) The testing method according to claim 11, wherein the washing step is mechanically assisted.

14. (Previously presented) The testing method according to claim 5, wherein the irradiation is infrared.

15. (Previously presented) The testing method according to claim 11, wherein the washing step is effected with water.

16. (Previously presented) A method of leak-testing a composite material component having at least one cover layer and a core with a plurality of cavities therein, said method comprising:

wetting a test area located on at least one side of the component with a film of a foam-forming testing liquid;

subjecting the component and a gas that is contained in the cavities to a temperature increase by irradiating the component; and

checking the test area for bubble formation of the testing liquid resulting from the escape of expanded heated gas through a defect in the component.

17. (Previously presented) The method according to claim 16, wherein the cover layer is a carbon fiber fabric and the core is configured as a lightweight honeycomb of the plurality of cavities.

18. (New) A method for leak-testing a component made of a composite material having at least one cover layer and a construction core having a plurality of cavities, said method comprising completely wetting an area to be tested on at least one side of the component with a film of a foam-forming testing liquid without immersing the component, subjecting the component to a temperature increase, and checking the component test area for a bubble formation of the testing liquid.

19. (New) The testing method according to claim 18, wherein the testing liquid is applied by brushing or spraying to at least the component area to be tested.

20. (New) The testing method according to claim 18, wherein at least the component test area is heated by irradiation after having been wetted with the testing liquid.